

ABSTRACT

An apparatus for the correction of congenital chest wall deformities, such as "Pectus Carinatum", comprising: a bar (10) having a flattened cross-section, having a minimum bending strength according to the values defined by ASTM F382-95, plates (20) having a slot (21) in the medium portion so as to fit the corresponding end of the bar (10) and peripheral holes (23) for securing the bone parts. The bar ends comprise planar grooves (11-11') determining the wall thickness substantially similar to the height of the slot (21) of the plate (20). The wall of the grooves (11-11') has aligned holes (13) in order to form with the respective plate (20) and by using screws (30), a fixed removable attachment that allows the axial registration of the bar (10). A method for the correction of Pectus Carinatum using the above apparatus, wherein the bar (10) is previously curved copying the proceeding (PR) and is inserted in front of the deformed sternum and cartilages, with the concavity of the bar resting on the anterior face of the sternum. Subsequently, the two plates (20) are inserted in the chest (T) lateral (axillary) region fixing the to two superior and inferior costal arcs (AC), by pericostal (P) steel wire stitches and to the holes (23) of the plates. The bar ends (11-11') are mounted on the slots of the respective plates, until two consecutive holes

(13) of the bar match the two threaded holes (25) of each plate, securing the attachment with two screws (30), thereby making the necessary pressure on the anterior sternum-chondral anterior face in order to achieve a normal anatomic shape of the chest wall. Later, and in the cases it is required, the compression of the protruded anterior region (PR) can be increased without needing to remove the implant, by removing the screws (30) and displacing the ends (11-11') until two other consecutive holes (13) match the holes (25) of the plates, and securing with the same screws (30).